showed at that time areas of fully developed sporangia which indicated that this organism was a Myxomycete. A culture was submitted to Dr. Thomas H. Macbride, who identified the organism as *Didymium xanthopus* (Ditmar) Fr.

Since the first appearance of this organism cultures have been readily established by transferring small portions of the vegetative form to fresh media, and also by sowing spores. At the present time the third generation from spores is growing luxuriantly and is furnishing excellent material for further study of this very interesting organism. It has been possible to obtain practically all stages in the formation of the sporangium by fixing material taken every two hours during the process of development.

It can also be readily observed with the low power microscope that the protoplasm exhibits reversible streaming movements in somewhat definite channels. This movement occupies but a few seconds in each direction, first accelerating and then retarding to a point of rest before reversing. This feature will have some value to the teacher who wishes to demonstrate protoplasmic streaming to students, for it is superior to any other material observed for this purpose.

A more extensive report of morphological and physiological studies of this organism will be published at a later date.

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The Effect on Plant Growth of Saturating a Soil with Carbon Dioxide

The following note reports a greenhouse experiment with corn and tomato plants where the soil surrounding the roots was gradually saturated with carbon dioxide, the aerial portions of the plants being under normal conditions throughout the experiment. The plants were grown in six-inch earthenware pots in a normal greenhouse soil. Both kinds of plants grew uniformly and there was no choice between the individual corn or tomato plants selected for the experiment.

A bell-jar, about ten liters in capacity and of the same shape as an ordinary aspirator bottle, was placed over one of the tomato plants. The earthenware pot containing the plant was raised up so that as much as possible of the plant was outside the jar. Absorbent cotton was placed about the plant at the mouth of the bell-jar. The bell-jar was put on a glass plate smeared with vaseline. One of the corn plants was treated in exactly the same way. No carbon dioxide was added for a week and the plants growing in the pots, enclosed by the bell-jars, made as good growth as the check plants.

A steady stream of washed carbon dioxide, of such speed that it gave two bubbles of gas per second as it passed through the wash bottle, was led into each of the bell-jars through a side opening near the bottom of the jar. This was continued for two weeks.

The lower parts of the plants were affected first and in a week the ill effects extended entirely over the plants. The leaves drooped, turned brownish, withered and curled up. The veins of both treated plants darkened. The plants were practically brown at the end of two weeks' treatment, the tomato plant being more physiologically affected than the corn plant.

After two weeks the side openings through which the carbon dioxide had been introduced were left open. The tomato plant soon damped off at the mouth of the bell-jar, while the corn plant began to revive, sent out new growth and at the end of a week was growing normally. Two weeks after the treatment was discontinued it had made ten inches of new growth.

From the way the check plants grew, the greenhouse temperature was satisfactory for plant growth and the soil was a normal one. The bell-jars did not produce the results, as they did not inhibit growth before the carbon dioxide was applied or after its application was discontinued. A carbon dioxide saturated soil upset the growth of these plants but did not change the soil so that the plant could not grow after its application was discontinued.

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